

# **Standardization and Benchmarking**

*Project report submitted in partial fulfillment of the requirement for the degree of*

## **BACHELOR OF TECHNOLOGY IN ELECTRONICS AND COMMUNICATION ENGINEERING**

By

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**UNDER THE GUIDANCE OF**

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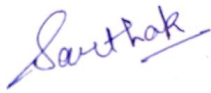
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## Candidate's Declaration

I hereby declare that the work presented in this report entitled “**Standardization and Benchmarking**” in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering** submitted in the department of **Electronics and Communication Engineering**, Jaypee University of Information Technology, Waknaghat is an authentic record of my own work carried out over a period from February 2020 to May 2020 under the supervision of **Mrs Charan Kaur (Territory Manager Odisha and Chhattisgarh)** .



**Sarthak Dhamija (161650)**

This is to certify that the above statement made by the candidate is true the best of my knowledge.



**Dr. Rajiv Kumar (Project Supervisor)**

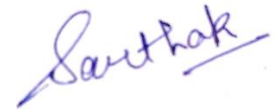
## Acknowledgement

It's my privilege to express my sincerest regards to my Hiring Manager **Mrs Charan Kaur (Territory Manger Odisha and Chhattisgarh)**, for her valuable inputs, able guidance, encouragement, whole-hearted cooperation and direction throughout the duration of the project.

I deeply express my sincere thanks to my mentor **Mr. Hemanth Kota (Channel Relationship Manager)** for encouraging and mentoring me throughout the internship.

At the end I would like to thank the Amazon Student Program Team and the training and placement cell coordinator of Jaypee University of Information Technology **Mr. Pankaj** who gave me the opportunity to explore in the area of Operations.

21/05/2020



Sarthak Dhamija (161650)

## **Abstract**

I am an Operations Manager Intern at Amazon Transportation Services Private Limited working on the crucial project of Benchmarking and Standardization of Out on Road processes as well as in station process.

As an intern, I was required to understand the standards authored by SMEs and using TMS as mechanism to analyze the advantages after standards implementation. Station level knowledge transfer of the standards and implementation within a specified period of time. Being the POC for all LM stations in East & Central Zone for Standard implementation queries. Also working on Continuous Improvement after observing the implemented standards and providing the SMEs with essential ground level data that can help improve the standards' output further.

# **CHAPTER 1**

## **INTRODUCTION**

Amazon.com, Inc. is a Fortune 100 organization that started by selling books online on Amazon.com. Established by Jeff Bezos in July 1994 who is the present Chairman, President and CEO. Amazon's central command are in Seattle, Washington, in any case, Amazon has workplaces all through the world. Inside Amazon, there are a few unique substances including Amazon.com (normally alluded to as Retail), and Amazon Web Services, Kindle and Advertising (alluded to as Non Retail). Amazon's top selling item is Kindle. There are a few distinct retails destinations universally including US, UK, France, Canada, Germany, Italy, Spain, Australia, Brazil, Japan, China, India and Mexico.

Amazon is driven by the accompanying the 14 Leadership Principles

The Amazon.com brand has been positioned by Forbes online as the twelfth most important brand around the world. It is a duty of all to appropriately utilize the Amazon mark and guarantee that different gatherings additionally use it appropriately. Appropriate brand use will causes us to keep up our height.

### **1.1 LEADERSHIP PRINCIPLES**

At Amazon, we ensure in exhibiting the LP standards through our activities consistently. Generally significant, our Leadership Principles depict how Amazon works together, how pioneers lead, and how we keep the client at the focal point of our choices. Our one of a kind Amazon culture, portrayed by our Leadership Principles, causes us tirelessly seek after our main goal of being Earth's most client driven organization. While we have ensured that the Principles have developed after some time, they stay consistent with the qualities we've held since Day 1.

Jeff Bezos started Amazon with an aim to be “Earth’s most customer centric company.” From this mission he built an enduring sustainable company culture that has scaled with our business.

- Customers are the first priority (Customer Obsession)
- Think Long term .” (Ownership)
- Spend wisely .” (Frugality)
- (Think Big)
- Sense of urgency.” (Bias for Action)

Customer Obsession is the quintessence of our statement of purpose - to be the world's most client driven organization. Concentrating just on contenders is constraining, and numerous organizations do that. We can gain from our rivals, yet we live for our clients. We settle on sure that any choice taken will be taken with keeping clients request and desires in thought.

On the off chance that we won't address the issues of our clients, we should not exist.

Amazon has clear outer client sets: the retail purchaser, merchants, sellers, and application designers. In any case, the idea of client fixation is basic to how we work in each activity and at each level. We can possibly have a smart thought of our clients on the off chance that we hear them out.

**Ownership:** You speak up when you see problems that sit outside of your area – and you don’t let go of problems until they are being properly dealt with. You own your dependencies – “It’s not my fault” is almost never an acceptable answer. You rely on experts inside and outside the company, acknowledging when the problem is bigger than something you can solve by yourself. That means you have high standards for who you work with, and actively participate in making sure Amazon is bringing in the right people and creating an environment where they can learn and grow. You work hard to build the right relationships for the long-term success of the company, not just the launch of your particular project.

**Bias for Action:** We balance Insist on the Highest Standards, Dive Deep, and Bias for Action by taking a gander at the idea of the choice. On the off chance that a choice is reversible, we act rapidly, on the grounds that the expense of fixing the choice might be not exactly the expense of getting increasingly flawless data. "Two-way doors" are reversible decisions i.e. Such decisions can and should be made quickly by high judgement individuals or small groups. Then again, if a choice is irreversible, we will set aside the vital effort to Dive Deep and ensure we have as complete an image as conceivable before actualizing the choice. Irreversible (or about irreversible) choices are likewise alluded to as "Single direction entryways". These choices must be made efficiently, cautiously, with incredible consideration and discussion since you can't return to where you were before once the choice has been actualized.

**Dive Deep:** Leaders understand the inner workings of the things they own. They're willing to get their hands dirty. Dive deep means to understand the core problem. Good leaders understand the problem -- they question "why" until they get the core problem. When senior leaders plunge deep, it encourages their teams to be more rigorous in their ownership.

Diving Deep gives us the information we have to settle on shrewd choices – it's perhaps the most ideal approaches to prepare our capacity to Be Right A Lot. Incredible pioneers start with their instinct and afterward test their suspicions by looking at the information that help or repudiate the choice. At the point when information isn't promptly accessible, acceptable pioneers discover approaches to get the correct degree of data they have to settle on an educated choice.

Plunging Deep is a method of understanding what makes a difference. It's tied in with diving into the coarseness and pulling out the basic parts. It's tied in with demystifying procedures, frameworks, and apparatuses. It's tied in with understanding your limits before things break and getting to the main driver if something turns out badly. Jumping profound is essential for settling abandons as well as for understanding the issue alright to construct a feasible arrangement that will scale.



Diving Deep methods contributing additional opportunity to get to the base of things and remaining firmly associated with the subtleties. Be that as it may, Diving Deep isn't about smaller scale overseeing. It's tied in with understanding the subtleties, and setting up shrewd evaluating components that permit you to keep your finger on the beat without being overpowered and expecting to control the details. Great pioneers are eager to burrow profound to test presumptions and afterward step back to let the proprietors own what they own.

Convey Results is the useful utilization of the remainder of the administration standards. Proprietorship, Customer Obsession, and Bias for Action are WHY we convey results. We use Think Big, Invent and Simplify, Dive Deep, Are Right A Lot, Insist on the Highest Standards and Frugality to figure out WHAT we convey. Recruit and Develop The Best, Bias for Action, Have Backbone, Disagree and Commit, and Earn Trust of Others are HOW we complete the work.

Convey Results is tied in with regarding our responsibilities – to our clients and to one another. It's tied in with finding a path around the unavoidable obstructions that square us. It's tied in with creating out of a predicament and taking care of business. At last it is the manner in which we approve the trust others put in us.

We don't work in a research organization. Our extravagant speculations and advancement innovations don't mean anything on the off chance that we never transform them into the real world. Amazonian pioneers push things through to the end. We convey - without fail. We center around the final products, not simply the procedure we use to deliver those outcomes.

Be that as it may, conveyance isn't visually impaired. It's not simply completing stuff; it's tied in with completing the RIGHT stuff. We center around the outcomes that advantage the client,

regardless of whether legitimately or in a roundabout way. We convey results that bring down our expenses while improving the client experience. We convey results that hit the cutoff time, without giving up quality, versatility, or life span. We organize savagely to ensure what we convey matters.

Thriftiness isn't tied in with being modest. It's tied in with burning through cash on the things that are imperative to our clients and to the drawn out accomplishment of our organization. As in numerous different things, we generally remember the long view when we settle on choices about spending. We don't hold back on things that will improve our profitability or productivity for the sake of Frugality. Jeff Bezos compared this kind of limited speculation to being approached to assemble a house and afterward being let you know need to bite your way through the two-by-fours.

Remember, the least expensive thing for us to do is to kill the site and close our entryways. That would set aside a huge amount of cash. Also, it would slaughter the organization. Not the entirety of the money related choices we face are that extreme, or that self-evident. A progressively sensible model originates from the product building side of the house. Truly, we can improve the main concern in the present moment by purchasing modest designer equipment. Yet, that modest equipment straightforwardly impacts our capacity to deliver the best quality programming by hindering our improvement forms.

So Frugality is extremely about contributing insightfully. We comprehend our expenses and make sense of how to bring down them without giving up our best expectations or affecting our client experience. Simultaneously, we'll assume a 5million misfortune in the short run for a 50 million long haul payout. We make good instinct careful decisions about costs and don't take a gander at cash as the answer for issues.

Truth be told, Frugality is a basic fixing in our procedure of advancement. A considerable lot of the issues we face could be fathomed by tossing more money at them. Be that as it may, regularly not doing so constrains us to think in altogether unique and novel manners.

## CHAPTER 2

### AMAZON LOGISTICS

In this chapter, we discuss about the journey of the shipment and the processes involved on how a packet is packed and delivered to customer doorstep.

Our site [www.amazon.in](http://www.amazon.in) is a commercial center where dealers of all sizes utilize our foundation to reach to clients found all over India. While a portion of these vendors decide to store their stock at the Amazon's distribution center called Fulfillment Center (FC) and utilize Amazon's reality class satisfaction assets (which is known as FBA - Fulfillment by Amazon) different merchants decide to store their stock in their own stockroom and utilize Amazon's Easy Ship arrangement or Amazon's dealer flex answer for satisfy client orders. At the point when a client puts in a request contingent upon whether the client picked thing is satisfied by amazon (FBA) or satisfied by shipper (unadulterated MFN or EasyShip), the request subtleties streams to either a Fulfillment place or the Merchant holding the stock.

Dealers in India have alternative to pick one of the underneath projects to work with Amazon.

**Satisfaction by Amazon** - Fulfillment by Amazon (FBA) gives Amazon's reality class satisfaction assets, quick, free conveyance choices, and trusted and acclaimed client care to the vendors. Dealers can send their items to an Amazon satisfaction focus, and Amazon will store the stock, pick, pack and boat arranges across India and give client support.

**Simple Ship** - Easy Ship is for merchants who wish to stock items in their own distribution centers yet need assistance with transportation and conveyance. Under Easy Ship, shippers store their own things, pack them when they get a solicitation and thereafter hand it over to the Pick-up accomplice, who by then sends the thing and ensures helpful movement.

**Merchant Flex** - Seller Flex program imparts to the dealers Amazon's prescribed procedures in warehousing, stock administration. Along these lines, certain chose dealers will be permitted to change over their stockroom into a FBA distribution center. This implies, in spite of the fact that the merchandise will be put away in dealer's distribution center they will in any case be labeled as FBA items. Dealers can pack and boat their items from their area in this manner limiting the expense to shipping their merchandise to Amazon distribution center and reclaiming stationary items from stockroom.

**Unadulterated MFN** – Pure Merchant Fulfilled Network alludes to venders dispatching their own items legitimately from their own stockroom in the wake of getting orders through Amazon. This implies putting away, picking, pressing the requests, organizing the delivery, and giving all client support is the immediate obligation of the merchant. These shipments don't enter AMZL Network.

## 2.1 SHIPMENT CYCLE

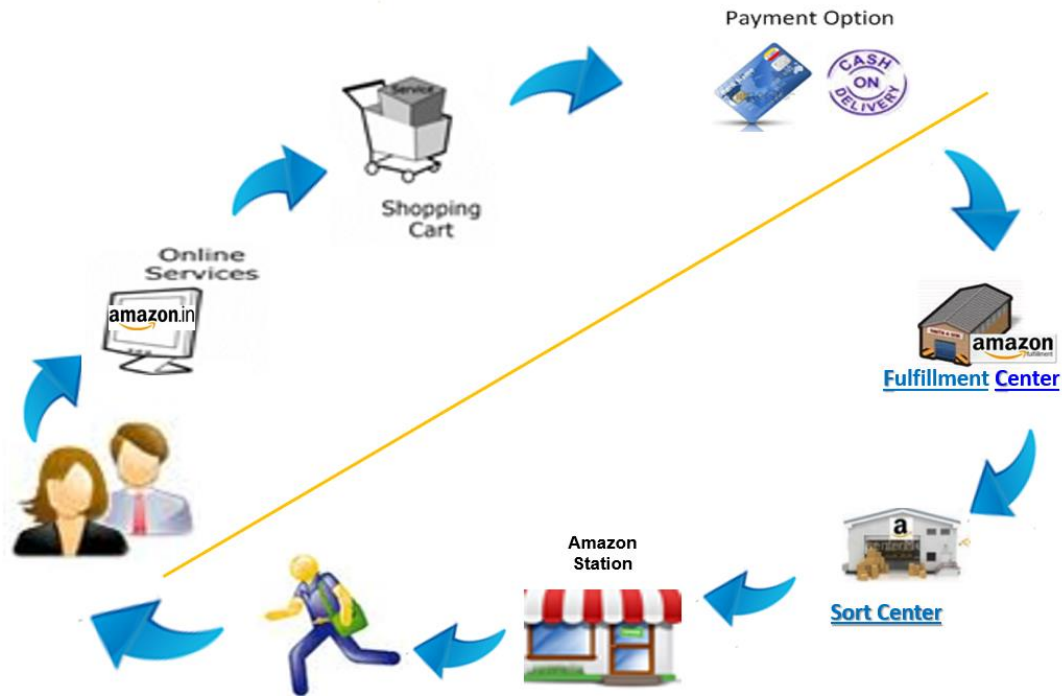


Figure 2.1: Journey of a shipment

## 2.2 Fulfillment Center (FC)

On the off chance that the thing is satisfied by amazon, at that point the request data streams to Amazon Fulfillment Center (FC). At the FC the thing is picked, stuffed, and arranged into a shipment. The shipment is marked with a transportation name.

The transportation mark has the bearer code and the administration type (speed of administration/method of travel). Toward the finish of the outbound procedure, the FC sorts the

shipment into different transporters utilizing the bearer code and the administration type. The shipments are then given over to the bearers for moving in their system to convey to the client.

## **2.3 Sort Center (SC)**

The activity of a local SC is same as that of the FC Dock yet preparing more than double the volume took care of by a FC Dock. The distinction between SC and FC Dock is in the wellspring of shipments. FC dock gets shipments from FC (just one source) however a local SC will get shipments from various hubs (different SCs and nearby stations). The provincial SC doesn't need to impart the working space to FC and different transporters

The procedure ventures at a SC is

### **1.Receive:**

Any heap that enters the office will be get checked in SCMS. All non-sort shipments that are legitimately stacked into the truck (called Fluid stacking) is get examined by filtering the following id standardized identification. All sacks that are gotten at the office is get filtered in SCMS by examining the pack ID standardized tag on the sack mark.

### **2. Sort:**

After get examine the packs are arranged dependent on the data on the sack id. The packs that should be opened at this hub are distinguished and moved to the arranging territory. The sacks that should be associated further are distinguished and moved to the individual organizing zone.

The thumb rule to recognize whether a pack must be opened/associated further is to search for the sack goal on the sack Id.

Correspondingly the non-sort shipments are arranged dependent on the city/station code on the delivery name. The shipments are arranged and moved to the separate organizing territory.

### 3. Pack

The shipments that came clinched that was opened at the SC are arranged to separate goals. First the pack tag is cut open and the shipments from the sack are moved into an arranging rack/table/tote (depending volume took care of by the hub). The shipments are then arranged into various paths. The SC will have a transport committed for a path. For a given path, there would be "n" number of packs on either side of the transport. Shipments that are arranged to a path (transport) will be picked by partner who will sort it into the privilege predetermined pack. The partner will examine the bundle to the pack in the framework to outline shipment to its sack, while dropping the shipment into the pack.

When the pack is full (ie., when the level line of "T" in the "ATS" composed on the sack slides to the edge of the pack stand) the sack is taken out from the sack stand, the pack name printed, pack mark appended on the sack tag, the pack label twisted around the neck of the sack and the pack fixed to close.

### Stage

The SC has arranging territories to hold the arranged packs/huge shipments incidentally until the time has come to associate in the planned line pull. The organizing regions are committed for the following hub/neighborhood station/gathering of hubs served by a line pull association/3P transporter.



The sacks that are to be associated further are organized straightforwardly at the individual arranging territory after get. The packs that are made in the stowing procedure is likewise organized in a similar arranging zone for additional association.

## 5. Depart

When it is the ideal opportunity for the CPT, the booked vehicle is called into the privilege outbound dock, the packs/non-sort shipments are moved from the organizing region into the truck. While the sacks/non-sort shipments are moved into the truck, the pack ids of the pack and the following ids of delivery mark (of non-sort shipments) is examined to a dock entryway scanner tag in this manner relating the pack/shipment to the truck.

When the truck is stacked, a show of the truck is printed from the framework to help administrative prerequisites enroot. The truck is then fixed to close and withdrew at the very latest the CPT.

Notwithstanding these means, the RSC likewise process FC Return material that is given over back to its nearby FC. The SC will get return shipments of nearby FC from all hubs across India.

## **2.4 Station**

The station is the last hub in the system that will convey the shipment to the client. The station will get just immediate packs that have shipments bound for the station. After accepting the heap, station will get filter the sacks in SCMS and then get examine the bundles in COMP (the apparatus utilized by last mile for overseeing conveyances). The station conveys the bundles to

client utilizing conveyance partners who travel on 2 wheelers (bicycle or engine bicycle) or van. As needs be the station will sort the bundles according to the size into van courses/bicycle methods of transport.

The shipments distinguished for van/bicycle methods of transport are then arranged into individual conveyance courses. The partner who goes for conveyance on a bike is furnished with a conveyance sack and the partner is relied upon to convey 40-50 shipments clinched by and large. Shipments that won't fit into conveyance pack and won't make the most of an of 40 when constrained into a sack will be conveyed by van.

In the wake of arranging the bundles according to the conveyance courses, the bundles are then doled out to the particular partners who will convey in that course.

### Station Operations

Stations will be responsible for the shipments that are passed on and gotten inside the Station's pin-code consideration district. To help the consideration locale, a station may send accomplices, stores and organization associates. Each Station will have the structure for orchestrating the shipments and limit of undelivered shipments.

## **CHAPTER 3**

### **PROJECT DELIVERABLES**

The AMZL Last Mile team is the final phase in the forward Supply Chain Network. All customer ordered packages via .in are received from FC/SC at the AMZL delivery stations based on serviceability and delivered within promised delivery date. This involves multiple processes to be executed where optimum utilization of manpower, time, available workspace and tools is most essential. In order to ensure standardization and effectiveness of station operations, LM works closely with ACES team which is involved in setting benchmark standards. The current project is a fusion of Last-mile and ACES team where LM ops SMEs work with ACES team to bring in Continuous Improvement concepts onto the delivery station platform.

**Detailed Problem Statement:** Since Last Mile operations have a large set of at station and out on road related processes, specific Benchmark standards i.e the right and optimized way of performing an activity with data to support its effectiveness was needed. Due to tribal knowledge, every delivery station had its own set of executing processes which led to non-standard way of work across entire AMZL network. This increased inefficiency in processes and knowledge gap among operators. Hence a set of rules in performing Last Mile processes were needed which again required large sets of TMS activity to be performed at ground level to record pre and post implementation changes.

Understanding the standards authored by SMEs and using TMS as mechanism to analyze the advantages after standards implementation. Station level knowledge transfer of the standards and implementation within a specified period of time. Being the POC for all LM stations in East & Central Zone for Standard implementation queries. Also working on Continuous Improvement after observing the implemented standards and providing the SMEs with essential ground level data that can help improve the standards' output further.

### **3.1 Executive Summary**

As a first step, before actually working on the project, I learned about the various tools used in the Last mile delivery stations and the various processes through the Learn by doing program. The project is to refine Benchmark process standards for Last mile Delivery Stations and improve productivity for in-station and OOR (Out on Road) by eliminating variance in process.

This section will outline and specify best practices and exception management techniques that the delivery associates or partners should adopt while they are out on road or at customer doorstep. The section also discusses the technical changes that should be implemented in order to better the metric scores of each station.

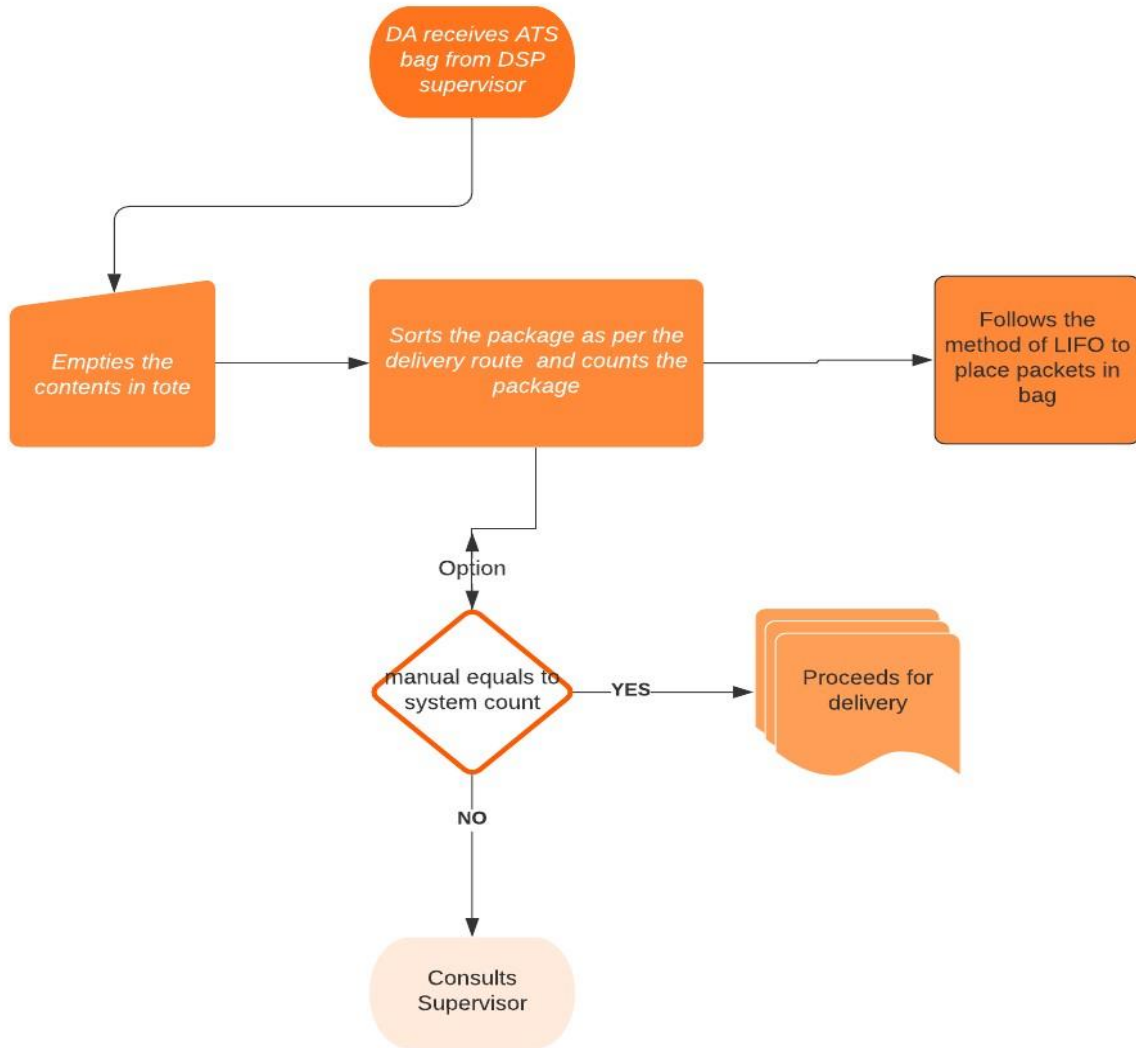
## 3.2 OUT ON ROAD PROCESS

### Delivery Associate

1. The current delivery process for associates consists of the following steps.
  - a. Pre-Depart Check
    - The DSP supervisor passes the bag of small packets to the respective delivery associate/partner.
    - The DA/DP validates the count of packets such that the physical count and system count is same.
    - The DA/DP sorts/sequences the assigned packages as per the delivery route.

### Process Explanation

1. On receiving the packages from the DSP supervisor, the DA empties the contents of the ATS bag on a pallette/tote.
2. Picks up one packet from the pallette/tote reads the address and places it on one side.
3. Continues step 2 for all the packets that have been assigned to him in such a way that the packets that belong to same locality or have an address which are close are placed together.
4. The packets are then placed in the **DA bag** in a way such that the packets which need to be delivered first are placed at the top, following LIFO method.
5. Finally proceeds for delivery after placing all the packet.



## **INFERENCES FROM THE PROCESS**

1. The above mentioned process was observed for a sample size of **15** Delivery associates where each and every process was timed with the process of TMS (Time Motion Study).

Hence **Sample Size= 15** (Bike DA's), DA's who carry packets on bike

2. It was observed that the average waiting time for the DA's to receive the bag from DSP supervisor was **9** seconds.
3. It takes **12** seconds for a DA to look at one packet, read the address and place it on one side so that packets can be sorted as per delivery route.
4. It is observed that when the packages are placed in the current DA bag by the LIFO method, the packets get jumbled up while the DA is carrying packets on his back thus this leads to DA again looking for the right packet at the customer location.

## **CALCULATION**

1. Average packets assigned to a DA - 40
2. Time taken to sort one packet – 12 seconds
3. Total sorting time – 480 seconds

## **SOLUTION**

1. The current DA bag should be replaced with a bag that has segregation, meaning it has sections which would eventually help in the following.
  - a. It would help the DA to quickly sort the packets in one of the sections and proceed for delivery thus saving the time currently spent in sorting/sequencing.
  - b. The packets would not get jumbled up when on road, thus helping the DA to quickly locate the packet and save time thus helping to deliver faster.
  - c. This segregation will help the DA while sorting the packages as per his own route, because simply keeping packets as per the address in one of the segments reduces time and increases the chances of productivity and reduced the UTR time.



**Fig 3.1: Delivery Associate Bag**



### **3.3 ATTEMPTED PACKAGES**

It is observed that when a package is out on road, the following are the reasons that a package is not delivered to the customer and falls in the category of attempted and results in hampering the productivity of the delivering the package.

- 1. Customer not Available**
- 2. Rejected by the customer at the door step**
- 3. Unable to locate the address**
- 4. Unable to contact customer.**

### **PROCESS FOR ATTEMPTED/REJECTED PACKAGES**

1. The DA takes out Amazon flex app
2. In case unable to locate, USE maps, call customer, send text via two texting and if still fails mark the scan and proceed for next delivery.
3. In case customer is not available, call the customer, follow customer instruction and if still packet is not delivered mark the scan as customer not available and proceed for next delivery.
4. If the customer rejects to take the package, ask for the reason of rejection, thank the customer, mark the scan as rejected and proceed for next delivery.

## INFERENCES FROM THE PROCESS

1. It is observed that it takes about **5-7 minutes** for the DA to go to customer door step, ring the bell, and mark the apt scan mentioned above depending upon the situation and instructions from the customer.

## SOLUTION

1. A system should be incorporated such that on departing a particular packet, three different pop-ups should be sent to the customer along with the current message of “that your packet is out for delivery and will reach your door step”
2. The pop ups here will be Accept, Reject, CNA

Reject

Accept

CNA with  
a note  
when to  
deliver

3. On clicking options of **REJECT and CNA**, we can have a three way check so that the customer is sure before making a choice. A three way check is to ask the customer thrice before making a decision.
4. This check will not be done if the customer wants to accept the order, **amazon wishes to deliver every packet and bring smiles thus no check is needed here and the packet will be delivered.**

## **ADVANTAGES**

1. This system would help the DA know well in advance in the RABBIT app if the packet is rejected or if it is a case of customer not being available.
2. Thus the DA need not go to the location and spend 5-10 minutes and end up with an attempted or a rejected scan.
3. The time saved here could be used to make more confirm deliveries in less time and increase productivity.
4. Potential DA abuse can be avoided here, thus DA would not be required to make any scan in this case thus reducing the DPMO count as the customer would have already provided an instruction.
5. More importantly the amount on fuel can be saved as the DA would not be going to the location for making the scan.
6. Also it is observed, that OB calling is done by the delivery stations so as to cross check if the scan made by DA is authentic or not.
  - 6.1 In cases where the scan made by the DA is genuine, that is if the packet is genuinely rejected on customer request, this calling will be avoided.
  - 6.2 Customers get irritated on receiving too many calls form DA as well as the station team, thus leading to bad customer experience.

### **3.4 Standardization of Last mile Delivery Process**

This section discusses about the process that need to be followed at Last Mile Delivery Stations in order to achieve better results and increase in productivity. This section further outlines the process that need to be followed with specific set of standards. The project deliverables were to make sure the stations follow the processes set by the Amazon team.

## **RTS- Return to Station**

When the driver drops off containers at location, a status with COMPLETED is sent system. In case of a failure to deliver a container at its rightful location, the driver marks 'Failed' on the on the mobile device with appropriate reason and the same is passed to system as attempted .The reasons include:-

- Invalid destination location.
- Non Feasibility of the destination authority to accept the container.
- Destination authority refused to accept the container.
- Container in not appropriate physical condition(usually damaged)
- Container Not Present (in the vehicle).

In case of the last mile delivery, the customer's address is the destination and customer is the destination authority.

## **Gemba Process**

A **gemba walk** is an observational and cataloguing exercise whereby technicians visually inspect all operational areas. Gemba walks are designed to ensure that all infrastructure teams are following AWS-accepted best practices, keeping in mind the importance of a safety.

As AWS continues to see rapid growth, infrastructure teams often find themselves balancing competing priorities.As much as teams would like to avoid it, this juggling act can lead to shortcuts, which too often means standards ignored or best practices overlooked. While sometimes necessary in the heat of the moment making a pattern of such behavior often creates future operational or safety issues. "Fixing problems requires us to first see the problems". Safety is paramount

Gemba walks are also opportunities for all technicians to practice Amazon's Leadership Principle "Ownership" and "Insists on the highest standards". The possibility of Gemba is to carry

perceivability to issues and potential arrangements so singular colleagues can affect the future heading of our organization. Investment is indispensable to the accomplishment of Gemba.

## **Manual Sidelining of Packages**

Since certain bundles have an alternate procedure work process than the others (greater part), these should be sidelined at the hour of bundle accept in station. While the enlisted bundles will move through typical activity process stream (of dole out and withdraw), the sidelined bundles will require a special case taking care of step or a stage to distinctively deal with these bundles before relegate and leave to meet client necessity.

The accompanying use cases get sidelined

**Essential sidelining** - Station more likely than not assigned regions for keeping sidelined bundles.

a. **At Wrong Station** – Packages that are bound for one station are gotten in another station because of wrong sacking by SC. Upon get check, COMP/Dolphin gives ready sound and applies "At Wrong Station" filter occasion to the following id consequently. Administrator will sideline the shipment for missort special case taking care of strategy. Such bundles must be handled as missort and interface with the correct station.

b. **Customer Missort** – Packages that are bound for a station is gotten at the correct station however dependent on the Sort Zones/NDL/Address administrator recognizes that the bundle should arrive at an alternate station but since client has off base pin code in the location, the bundle got steered to this station. In spite of the fact that COMP gives a triumph sound and applies "At Station" examine occasion naturally, administrator recognizes the miss while arranging. Administrator at that point sidelines the shipment, marks "At Wrong Station" physically and follows miss sort special case dealing with system

c. **Customer Instruction (Needs Attention)** – When a bundle has client directions that requires administrator consideration, upon get filter, COMP gives another alarm sound. Administrator will sideline the shipment and later read and affirm the client guidance and act in like manner. The three use instances of Customer Instructions are Stop and Return, Reschedule and Redirect. Check directions and act dependent on the client inputs. While getting from COMP/Dolphin this will fall in the can of "Need consideration".

d. **Unresolved Shipments** – Package got at the predetermined station effectively yet there is no sort code (sort zone/NDL/segment code) for arranging the shipment to right conveyance course. These bundles sidelined by administrators and later arranged physically utilizing the location on the mark.

e. **Weekend Delivery** – On Saturday and Sunday, every business bundle that don't have conveyance guarantee that day are sidelined for conveyance on Monday. Since simple boat name doesn't have guarantee date, all Easy Ship are sub-sidelined and their guarantee distinguished from framework. This is totally manual sidelining with no framework alert. Once sidelined, these shipments are labeled as Commercial so they don't get allotted for conveyance course, that day.

## **Daily Deep Dive**

The quality of the daily deep dive lies in the ability of the team to understand and take proper action to manage the site's performance by eliminating defects and improving processes continuously. The metrics and the discussion they generate provide the key evaluation of:

- \* Persistent problem areas that do not improve over time.
- \* Action items and root cause analysis that does not fit the facts, i.e. speculation.
- \* Lack of aggressive action or escalation at the time of first failure.

\* Professionalism and depth of knowledge of business owners in their space.

The expectation is not that there will be zero misses, especially when targets are appropriately aggressive, but that the owners will be held responsible in meeting daily commitments, overcome barriers to meeting those commitments, and improve their processes by eliminating defects through root cause analysis.

### **Assign and Depart**

Delivery stations receive packages from Fulfillment and Sort Centers. Post load receive and sorting, assigning & departing the packages to the right channel based on the channel mix decided and capacity available is a very crucial process in station operations. Station performance parameters like EMD (Early Morning Delivery), FDDS (First Day Delivery Success) and Delivery Misses are closely related to the successful and timely assign+depart operations. Apart from this, CPS (Cost per Shipment) is also closely connected to the channel chosen and the quantity assigned.

Hence it is very essential for every AMZL station to follow an efficient methodology for Assign and Depart which will in turn speedup in station processes for the rest of the day. Station Manager (SM), Team Lead (TL), Delivery Supervisors (DS), Process Associates (PA) & Station Support Associates (SSA) would be the target audience on following these standards

## CONCLUSION

The project deliverables at amazon helped in understanding station level knowledge, transfer of the standards and implementation within a specified period of time. Being the POC for all LM stations in East & Central Zone for Standard implementation queries. Also working on Continuous Improvement after observing the implemented standards and providing the SMEs with essential ground level data that can help improve the standards' output further.

- A thorough understanding of Last Mile operations
- Intermediate level expertise in Excel – Pivots and Charts

The project at amazon lead to achieving

- Productivity Improvement to meet IOP Goals
- Implementation and Adoption of Standards 100%
- 2 Kaizen per month with reporting on savings by liaising with Finance partner



## References

1. [https://w.amazon.com/bin/view/Main/Search?text=gemba&f\\_type=DOCUMENT&f\\_locale=en&f\\_locale=&r=1](https://w.amazon.com/bin/view/Main/Search?text=gemba&f_type=DOCUMENT&f_locale=en&f_locale=&r=1).
2. <https://w.amazon.com/bin/view/LeadershipPrinciples/>
3. <https://w.amazon.com/bin/view/Amazon/>
4. [https://w.amazon.com/bin/view/Main/Search?text=assign%20and%20depart&f\\_type=DOCUMENT&f\\_locale=en&f\\_locale=&r=1](https://w.amazon.com/bin/view/Main/Search?text=assign%20and%20depart&f_type=DOCUMENT&f_locale=en&f_locale=&r=1)
5. [https://w.amazon.com/bin/view/Main/Search?text=deep%20dive&f\\_type=DOCUMENT&f\\_locale=en&f\\_locale=&r=1](https://w.amazon.com/bin/view/Main/Search?text=deep%20dive&f_type=DOCUMENT&f_locale=en&f_locale=&r=1)